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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,269	10/31/2003	William Gerald Wyatt	004578.1384	1666

45507 7590 10/23/2006

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EXAMINER
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FORD, JOHN K

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,269

Applicant(s)

WYATT ET AL.

Examiner

John K. Ford

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Aug 3, 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 6-19 is/are pending in the application.
- 4a) Of the above claim(s) 9-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3744

Applicant's election of Group I (claims 1-9) and the first species of Figures 1 and 2 (with claims 1-8 of Group I being deemed readable by applicant on the elected species of Figures 1 and 2), without traverse, in the April 3, 2006 communication, is acknowledged. Accordingly, claims 9-19 remain withdrawn from consideration here. Claims 3 and 5 have been cancelled. Accordingly, an action on the merits as to claims 1, 2, 4, 6, 7 and 8 follows.

Applicant's response and amendments to the claims of August 3, 2006 have been studied carefully. In an extremely brief response, it is apparently applicant's contention that all of the passageways 14 in any two adjacent units (e.g. C and D) of Roulton cannot constitute "a conduit". The examiner does not understand why. In the elected species, applicant's own disclosure shows a plurality of passageways extending from a common coolant supply manifold 41 (one, 92, going to the right and curving downwardly and another one, 91, going off to the left and curving downwardly). These two separate sections are referred to as a "conduit". Thus, it is apparent that applicant's "conduit" can contain multiple branches connected to a common manifold 41, very similar to what is shown in any two adjacent units in Roulton or Larionoff '180.

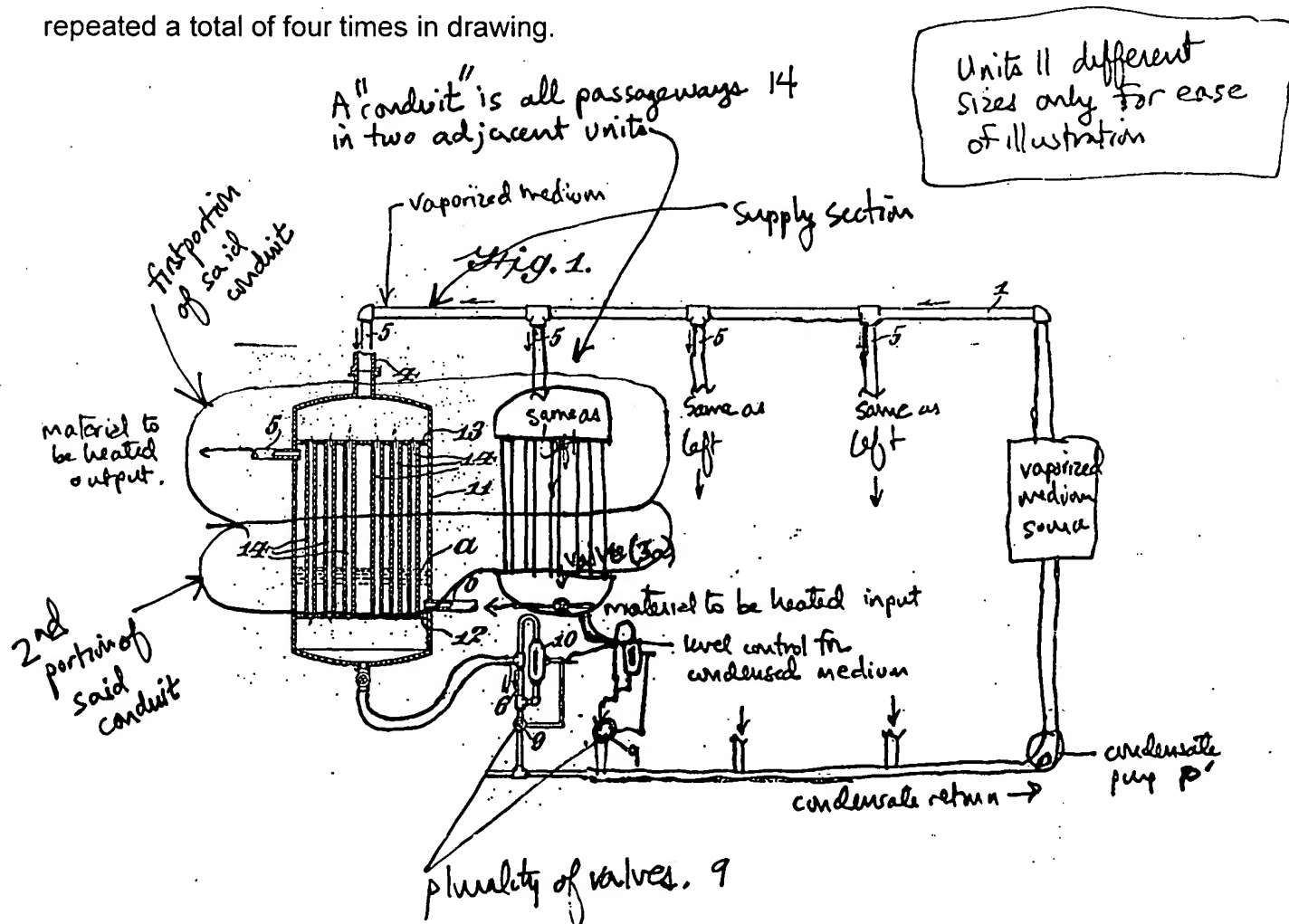
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: ~~3753~~ 3744

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulton (USP 1,906,422) in view of Fay (USP 5,950,717).

Note at the on-set, that Roulton discloses, but does not show the variant discussed on page 3, lines 84-86, wherein "the heating medium may be passed through the tubes and the fluid to be heated passed around the tubes, instead of as described above." It is this latter, un-illustrated embodiment of Roulton, which the examiner relies on in the rejections that follow. For convenience, the Examiner has drawn it below, showing only one unit 11 in detail, with the understanding that this one unit 11 is repeated a total of four times in drawing.



The claimed first and second portions of claim 1 are the upper and lower portions of shells 11. Thermally conductive portions (comprising the space defined by the tubes 14 in respective shells 11) are disposed between the upper and lower portions of the shells 11. A supply section 1 transports vapor to a plurality of pipes 5 that distribute the vapor to the upper (first) portion of the various shells 11. While no fins (applicant's claimed "thermally conductive portion") are shown in Roulton, such fins are disclosed by Fay in Figure 3 and are submitted to be ubiquitous in this art and therefore, if not already present, would have been obvious to have added to improve heat transfer. The first and second valves are any two respective valves 9 connected to the outlet of any respective shells 11.

The valves are responsive to the presence of coolant in a liquid state as determined by a respective liquid level device 10 (of the four disclosed), which opens a respective valve 9 (of the four disclosed) to drain the respective condensate from the respective lower portion.

Claims 1, 2, 4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Larinoff (USP 4,129,180), Fay (USP 5,950,717) and Roulton (USP 1,906,422).

Larinoff teaches a vapor condenser with two tube banks 24 that each condense vapor and control the condensate level in the wells 29 (sometimes called "pots" in this particular art). Taken in the aggregate these tubes in any one section of the overall device make up applicant's claimed "conduit." The upper portion of the aggregate of these tubes in any one section constituting the "first portion" and the lower half of these tubes constituting the "second portion". Overflow drainpipes 31, on the right and left of Figure 1, without the use of a valve, control the level. Fay discloses in Figure 3, that the tubes in the tube banks of Larinoff are typically finned to increase the air-side heat transfer. To have finned the tubes of Larinoff would have been obvious to one of ordinary skill to advantageously increase heat transfer. Moreover (regarding applicant's claim 2) to have connected as many units 24 of Larinoff (see col. 5, lines 3-6) as required in the manner shown by Fay in Figure 1 (section G1, G2 and G3, for example) would have been obvious, to have met the cooling requirements for whatever size power plant need to be cooled. Each section would have its own condensate drain 31. The discussion of Roulton given above is incorporated here by reference. To have replaced each of the overflow drainpipes 31 of Larinoff with a level control as taught by Roulton at 6, 9 and 10 (i.e. an automatic controlled drain valve) to advantageously eliminate the need for a condenser pot vent discussed in the paragraph spanning columns 6-7 of Larinoff would have been obvious to one of ordinary skill in the art.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Larinoff (USP 4,129,180), Fay (USP 5,950,717) and Roulton

Art Unit: 3744

(USP 1,906,422) as applied to claim 2 above, and further in view of Larinoff 4,301,861 or Carey et al 5,067,560.

Larinoff '861 (see element 25 and the description thereof) and Carey '560 (Figure 2) each separately teach housings for large condensers. To have placed the condenser of Larinoff '180 / Fay '717 into an elongate housing to protect it from the elements would have been obvious to one of ordinary skill in the art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP§706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

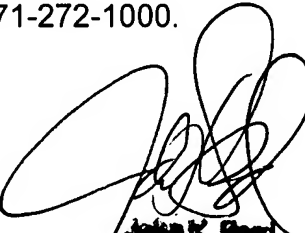
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3744

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John K. Ford  
Primary Examiner